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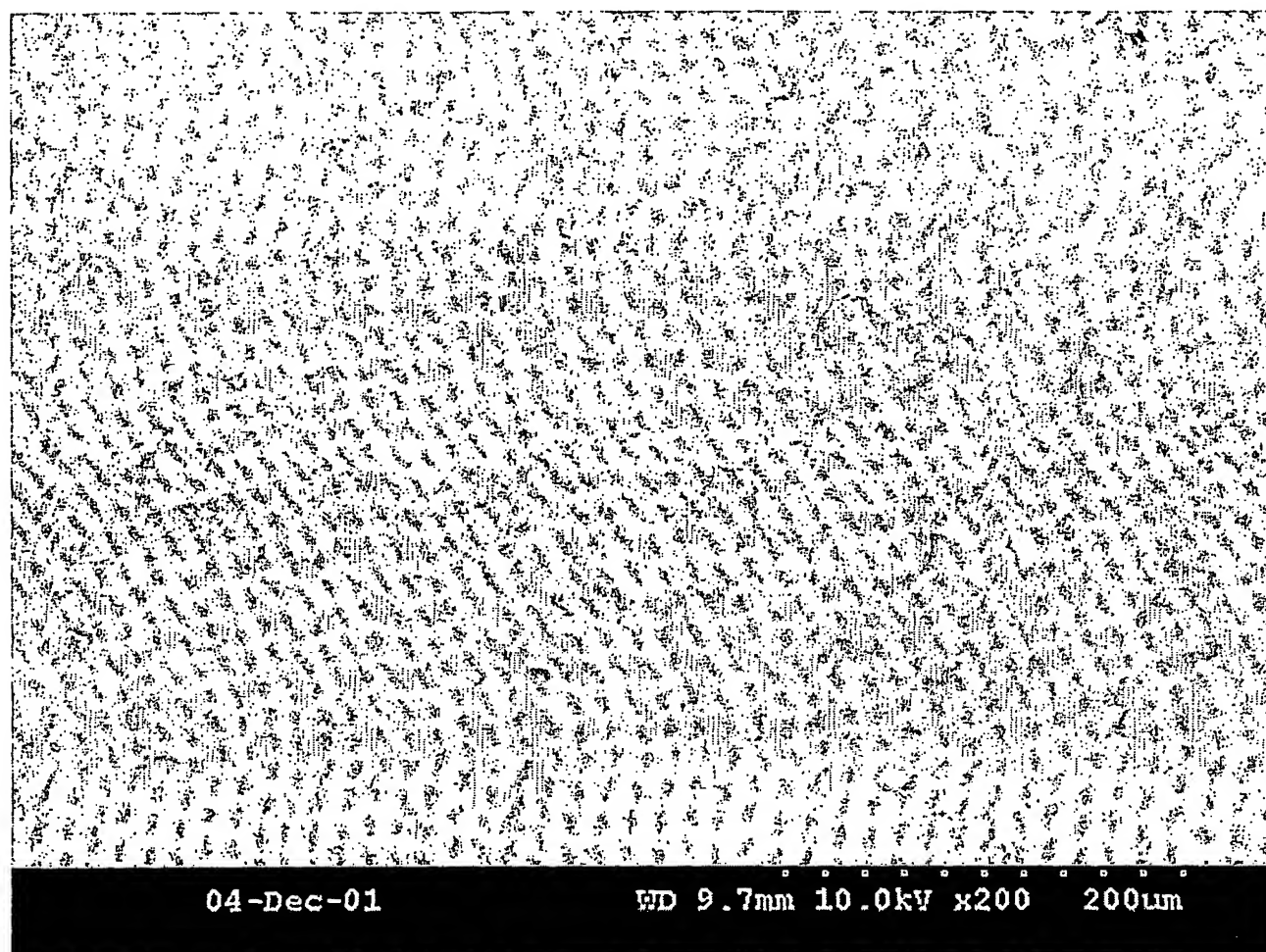


Fig. 1

| C | Si | Mn | Ni | Cr | Mo | Nb | Hf | Ti | Zr | Co | W |
|------|------|------|------|------|------|------|------|------|-------|------|------|
| 0.41 | 1.12 | 0.73 | 34.3 | 25.7 | 0.02 | 0.96 | 0.26 | 0.00 | 0.008 | 0.05 | 0.01 |

Traces (Al + P + S + V + Zn + As + N + Sn + Pb + Cu + Ce) = 0.31

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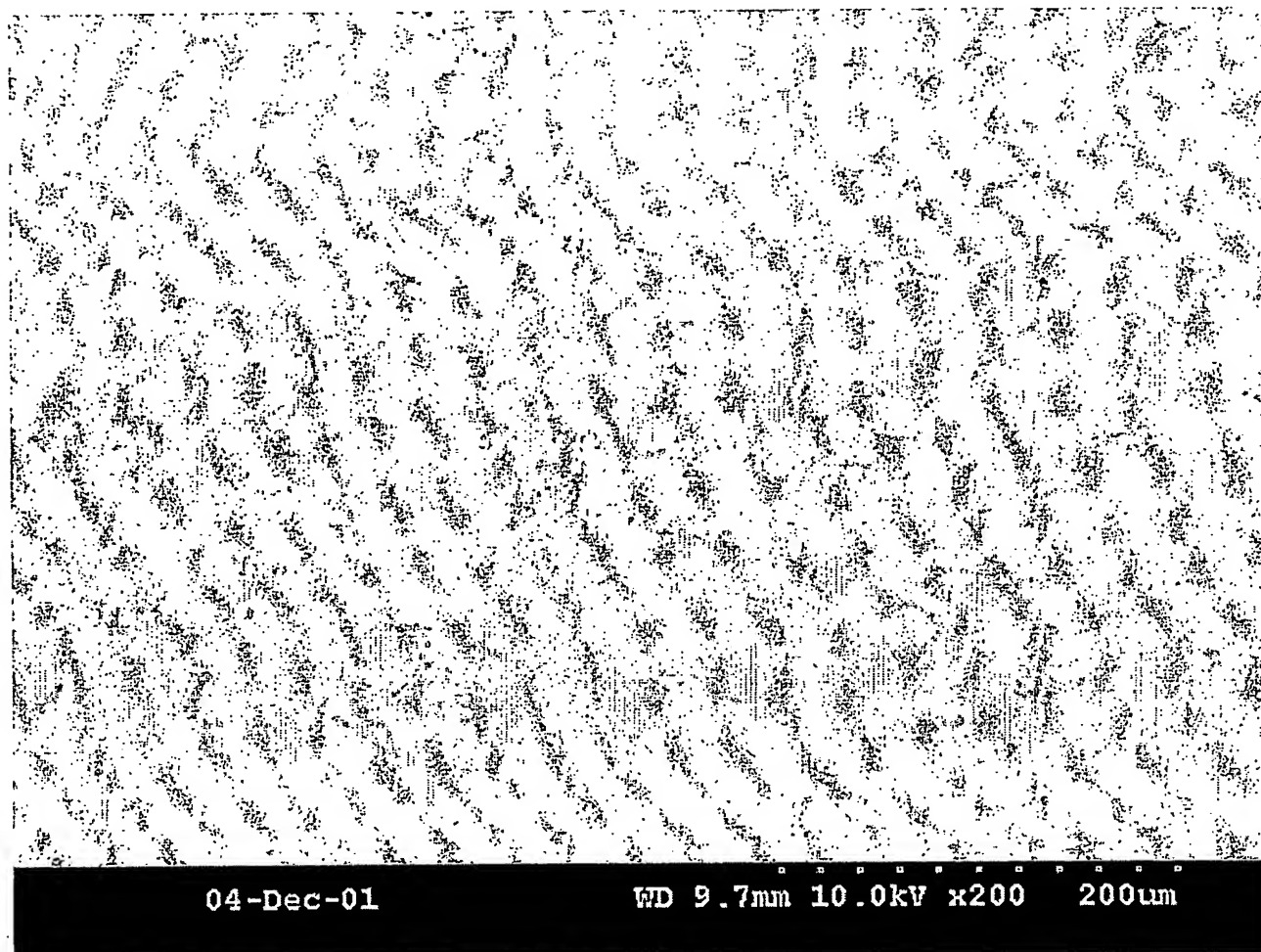


Fig. 2

| C | Si | Mn | Ni | Cr | Mo | Nb | Hf | Ti | Zr | Co | W |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.41 | 1.85 | 1.47 | 34.7 | 24.4 | 0.05 | 0.96 | 0.10 | 0.09 | 0.01 | 0.04 | 0.02 |

Traces (Al + P + S + V + Zn + As + N + Sn + Pb + Cu + Ce) = 0.32

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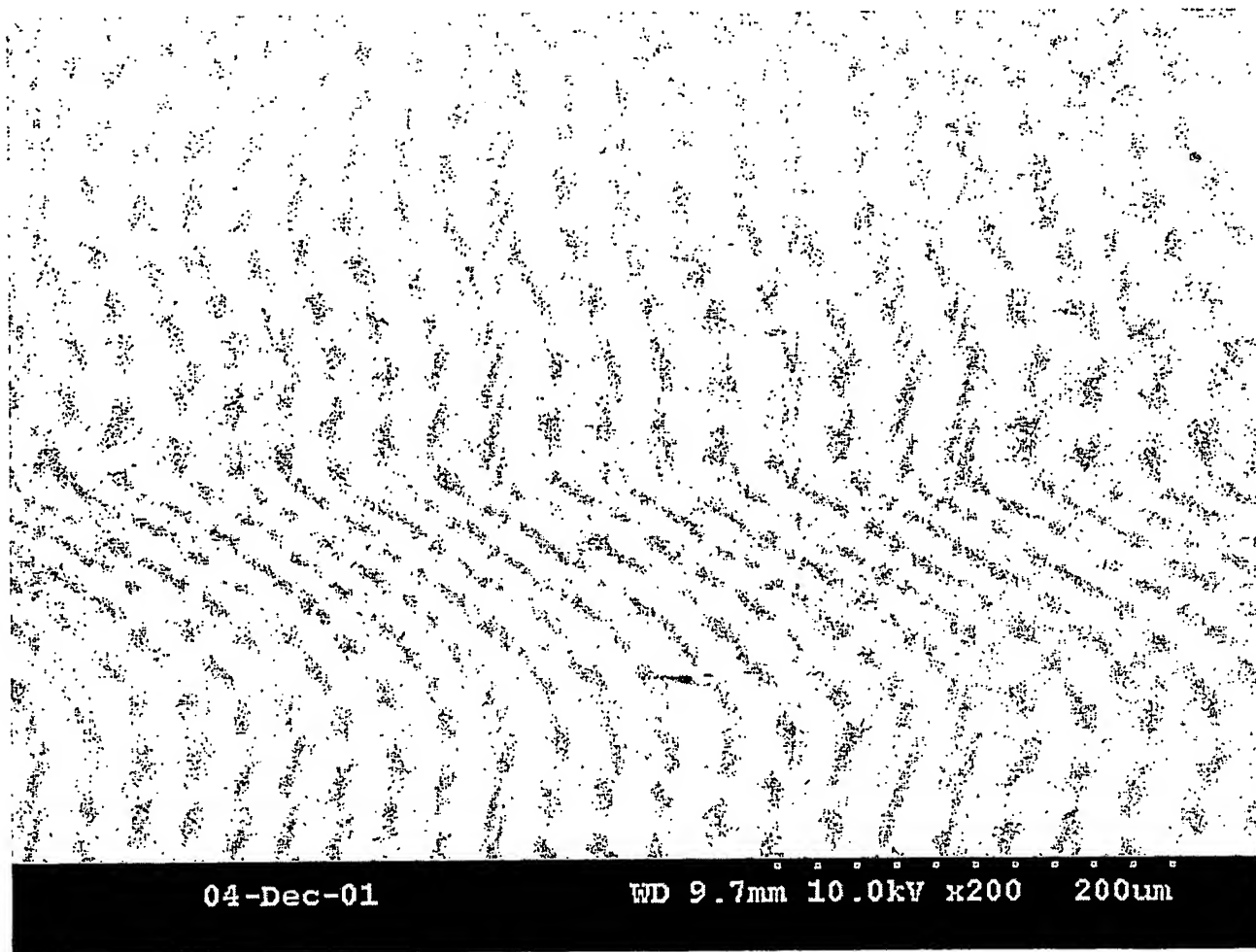


Fig. 3

| C | Si | Mn | Ni | Cr | Mo | Nb | Hf | Ti | Zr | Co | W |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.40 | 1.51 | 0.96 | 33.2 | 24.7 | 0.02 | 0.77 | 0.31 | 0.08 | 0.01 | 0.05 | 0.01 |

Traces (Al + P + S + V + Zn + As + N + Sn + Pb + Cu + Ce) = 0.28

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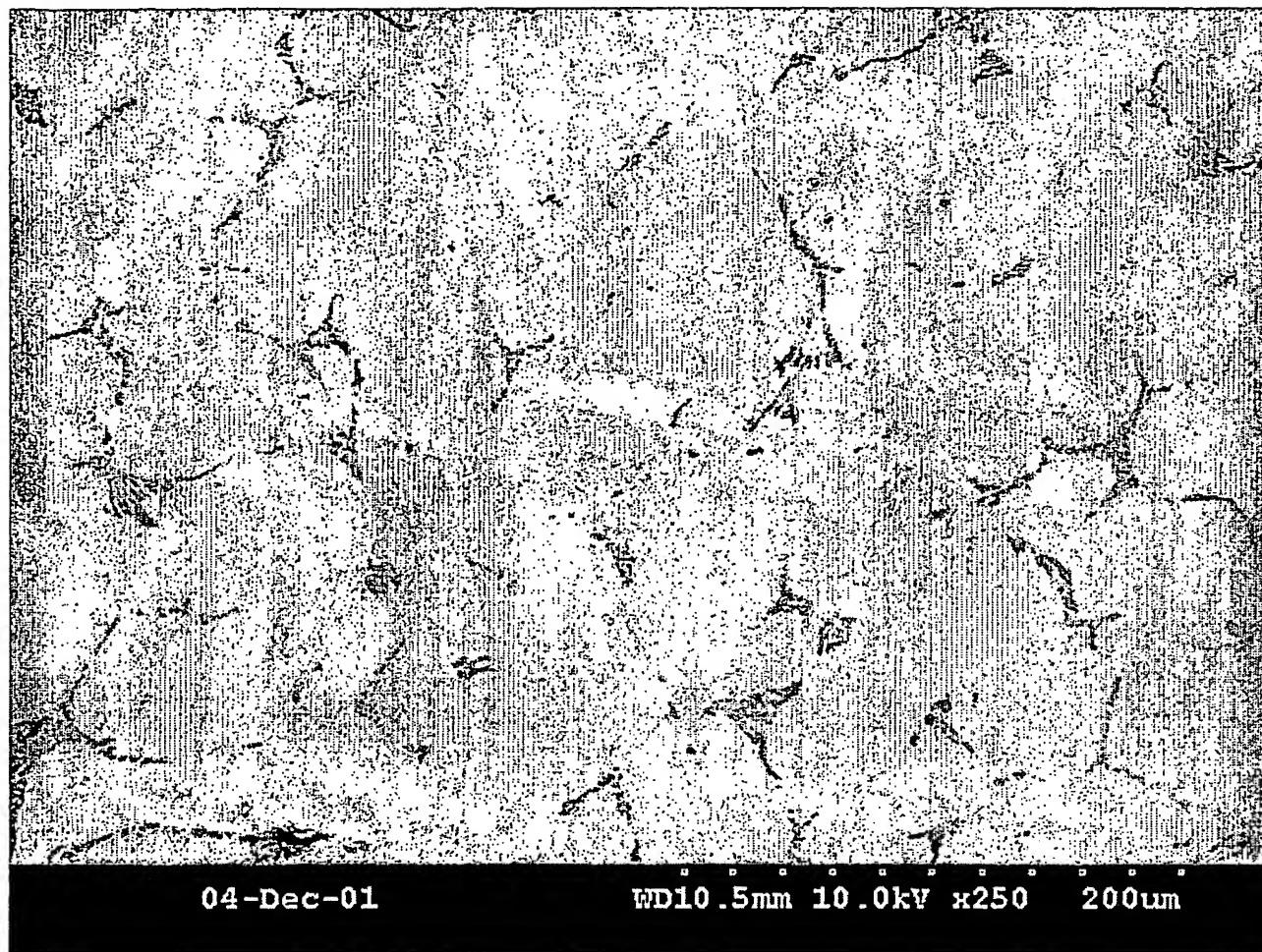


Fig. 4

| C | Si | Mn | Ni | Cr | Mo | Nb | Hf | Ti | Zr | Co | W |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.45 | 1.30 | 0.90 | 33.8 | 25.7 | 0.03 | 0.85 | 0.25 | 0.10 | 0.01 | 0.04 | 0.01 |

Traces (Al + P + S + V + Zn + As + N + Sn + Pb + Cu + Ce) = 0.29

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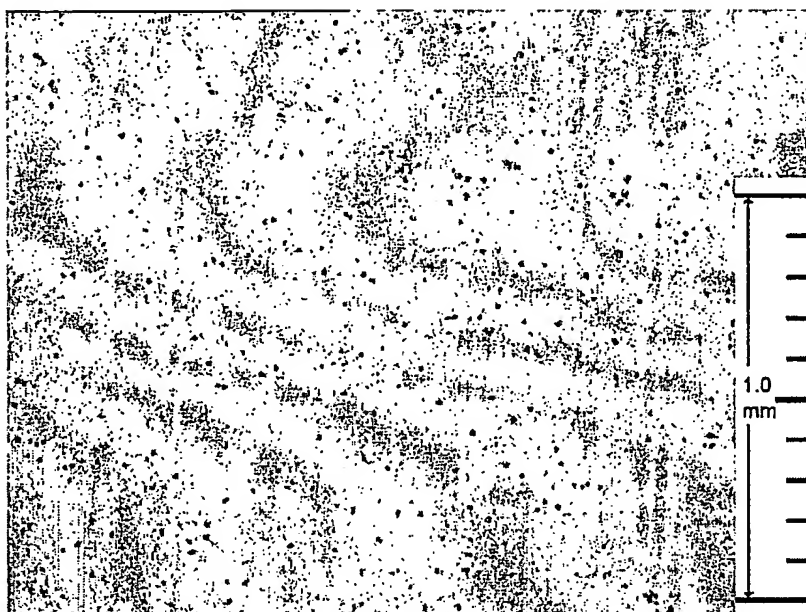


Fig. 5



Fig. 6

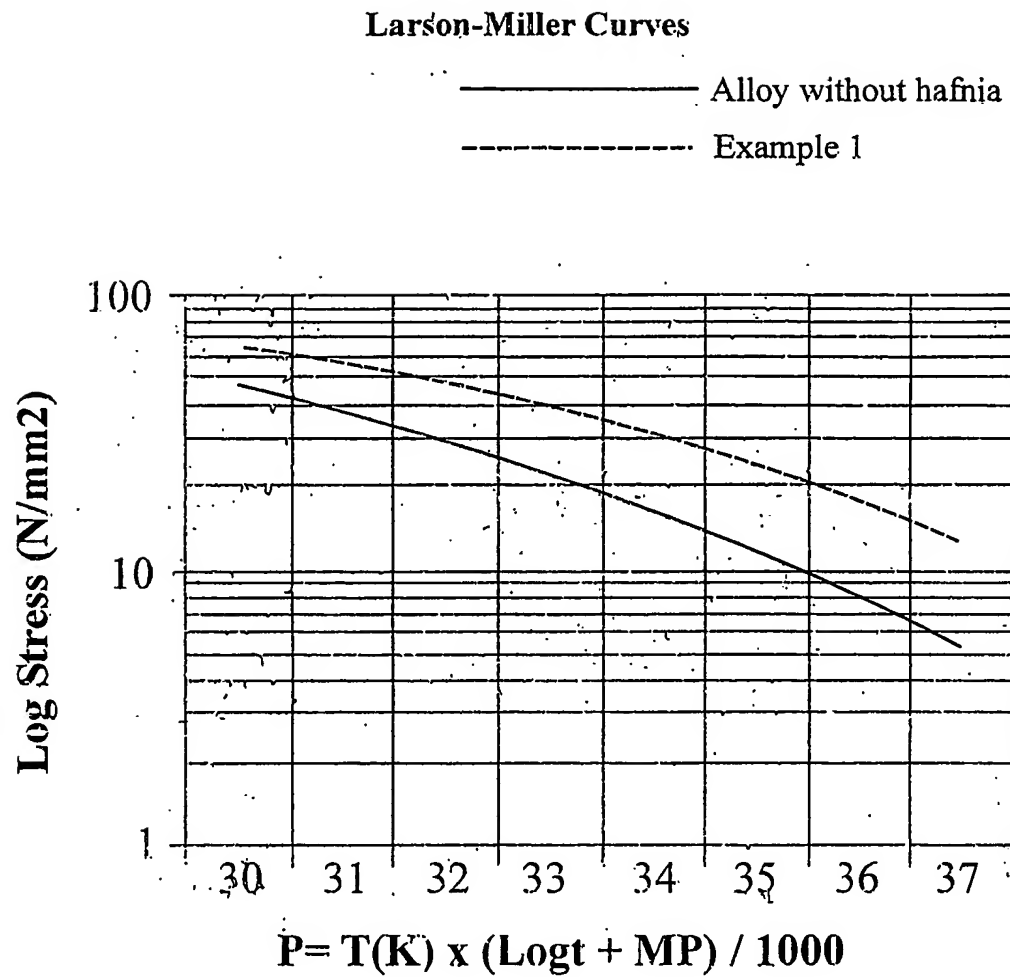
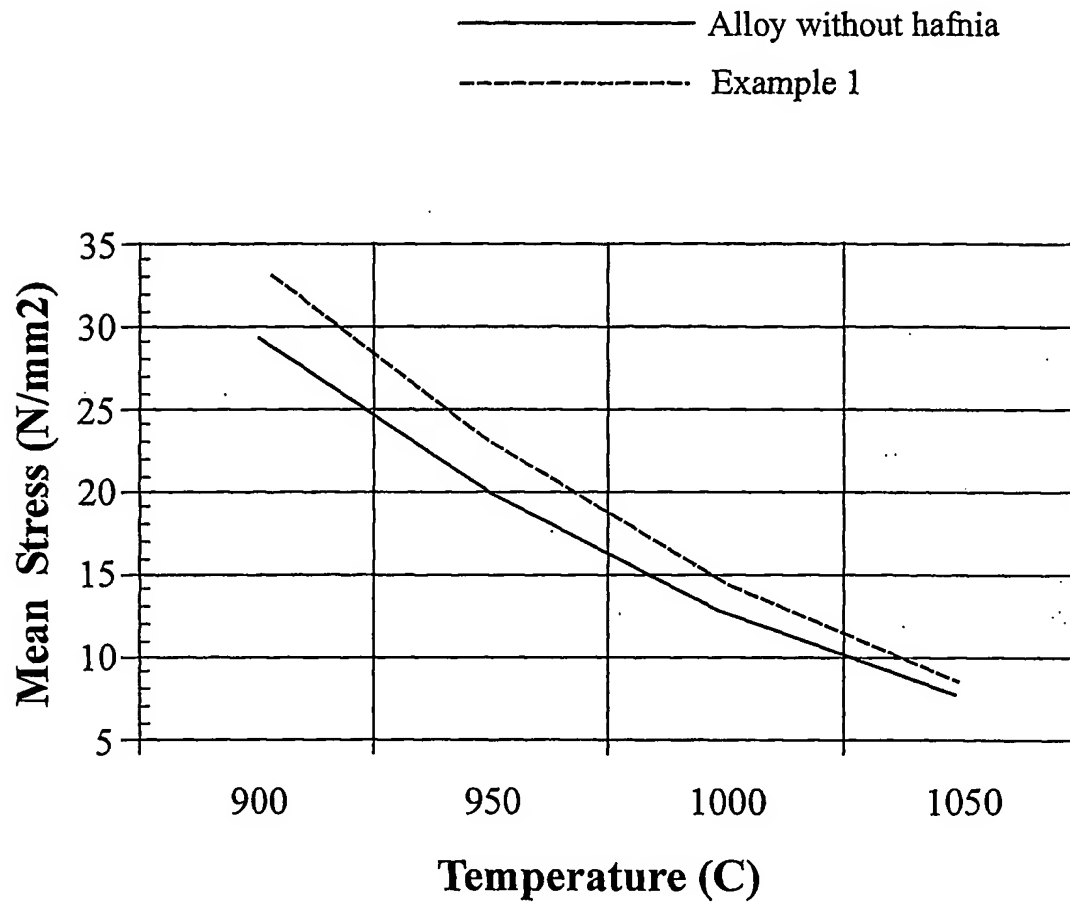


Fig. 7

100,000hrs creep strength comparison**Fig. 8**

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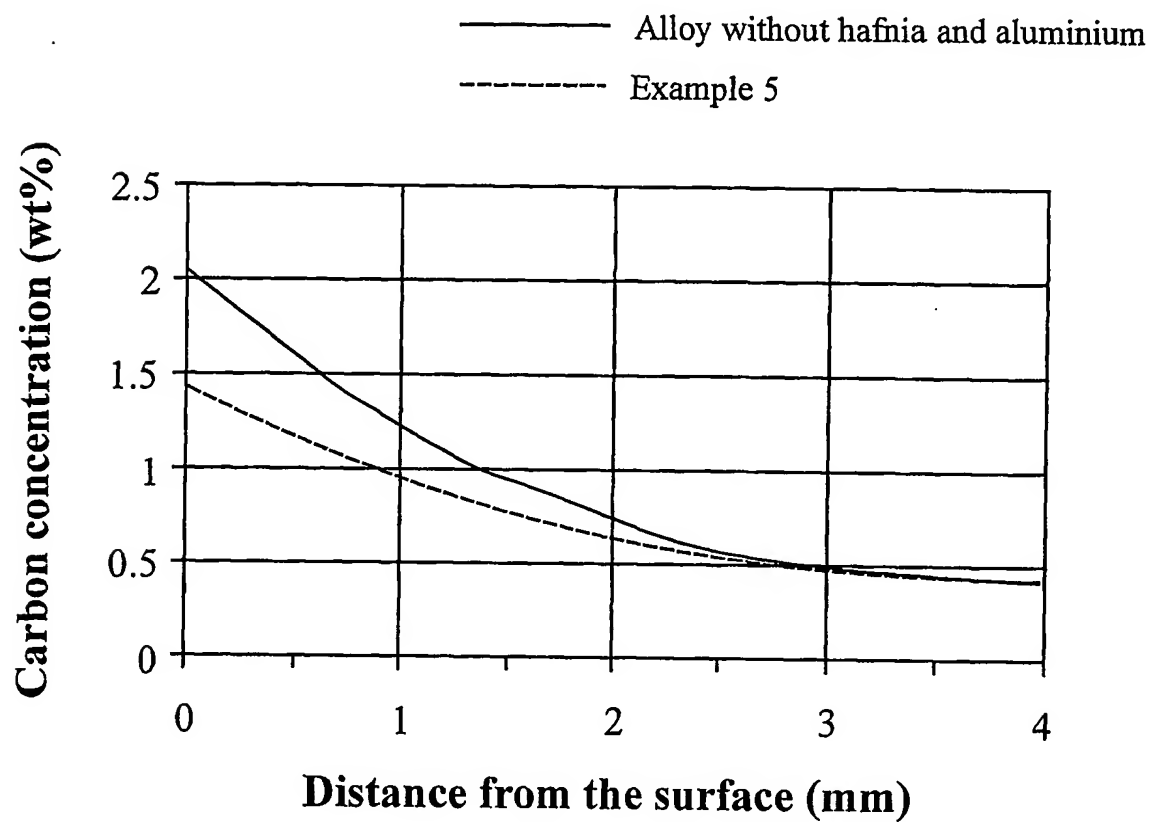
Pack-Carburisation Test at 1150C During 200hrs

Fig. 9